Development of Mobile Application Based on React Native Platform

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***Abstract*—This thesis focuses on the development of a mobile application using React Native. The author provides an overview of React Native, its architecture, and the development process, including setup, networking, and error handling. The application developed is a mobile app for viewing lecturer schedules, but it faces challenges such as system instability, high storage requirements, and lack of iOS support. The author also discusses the limitations of the developed application, such as system instability due to cloud deployment costs, high storage requirements, and inadequate security measures. The author mentions the need to develop iOS support and reduce storage usage.**

***Index Terms*—React Native, mobile application, development, framework, cloud deployment**

I. Introduction

The thesis introduces React Native as a framework for developing native mobile applications. It covers the basic concepts, architecture, and essential components of React Native, as well as the development process, including setup, networking, and error handling. The author explains that React Native allows developers to build cross-platform mobile applications using JavaScript and React, which can run on both iOS and Android. The development process involves setting up the development environment, connecting to the network, and handling errors. The application developed is a mobile app for viewing lecturer schedules, but it faces challenges such as system instability, high storage requirements, and lack of iOS support [1]. Related published studies provide context for the subject and methods [9], [10]. These contextual works were selected for this English summary; they are not asserted to appear in the original thesis bibliography.

II. Methods

The author explores React Native and its application in web development environments, as well as the use of Heroku for deploying applications on mobile devices. The development process involved setting up the development environment, connecting to the network, and handling errors. The author describes the steps for setting up the development environment, including installing Node.js, creating a new React Native project, and configuring the necessary dependencies. The author also explains how to connect to the network and handle errors, such as implementing network requests and error handling mechanisms. The application developed is a mobile app for viewing lecturer schedules, but it faces challenges such as system instability, high storage requirements, and lack of iOS support [1].

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III. Results

The thesis describes the development of a mobile application for viewing lecturer schedules using React Native. However, the application faced several challenges, including system instability, high storage requirements, and the lack of iOS support. The author mentions that the application was developed using React Native and deployed on Heroku. The application allows users to view lecturer schedules, but it is not yet fully functional. The author notes that the application is still in the development phase and requires further testing and optimization. The application is not yet deployed on the App Store or Google Play Store, and there are no measured evaluations or performance metrics provided [1].

IV. Discussion

The author discusses the limitations of the developed application, such as system instability due to cloud deployment costs, high storage requirements, and inadequate security measures. The author mentions the need to develop iOS support and reduce storage usage. The author also notes that the application is still in the development phase and requires further testing and optimization. The author suggests that the application could be improved by implementing better error handling mechanisms, optimizing storage usage, and developing iOS support. The author also mentions the need for user feedback and testing to ensure the application meets the requirements and expectations of its users [1].

V. Conclusion

The author concludes that while the thesis provided a comprehensive understanding of React Native and its application, there are still areas for improvement, such as enhancing security, reducing storage usage, and developing iOS support. The author also mentions the need for further testing and optimization of the application. The author suggests that the application could be improved by implementing better error handling mechanisms, optimizing storage usage, and developing iOS support. The author also notes that the application is still in the development phase and requires further testing and optimization [1].

References

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